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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,181	09/22/2000	John Van Saders	7174-128	1069

7590

09/20/2002

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EXAMINER

NGUYEN, DANNY

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 09/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/668,181

Applicant(s)

VAN SADERS ET AL. 

Examiner

Danny Nguyen

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1-3, 5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mourant et. al. (USPN 5,697,092).

Regarding to claims 1,3, and 7, Mourant et. al. disclose a method and an apparatus for a circuit (1) against over-voltage comprises a transistor (2) having a first output terminal (4) coupled to a first signal branch of a balanced circuit (9), a second output terminal (5) coupled to a second signal branch of the balanced circuit (9), and a control terminal (11) connected to a reference voltage (19) (see fig. 4); wherein a balanced transient signal present on the first and second signal branch of the balanced circuit caused the transistor to become conductive and to shunt the balanced signal from the first output terminal (4) to the second output terminal (5) of the transistor (2) (see figs. 3 and 4).

Regarding to claims 2 and 8, Mourant et. al. disclose that the protection circuit comprises a balun transformer (3) which have a pair of input terminals (see fig. 3) capable of receiving an balanced signal (unbalanced RF voltage at the input terminal 7) and a pair of output terminals connected to the first and second signal branches of the

balanced circuit (9) (see col. 2, lines 45-49) converts an unbalanced signal to a balanced signal.

Regarding to claim 5, Mourant et. al. disclose that the protection circuit comprises a resistor (17) inserts between the control terminal (11) and the reference voltage (19) (see fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mourant et. al. Mourant et. al. do not disclose the transistor as claimed. However, as for the unbalanced protection circuit being used various transistors (BJT or HBT); it would have been obvious to one of ordinary skill in the art at the time the invention was made to select any known unbalanced voltage protection transistor as deemed suitable in order to provide the unbalanced voltage protection function. This is further demonstrated by applicant's various embodiments of the unbalanced voltage protection as claimed absent persuasive evidence that particular type of unbalanced voltage protection transistor is significant.
3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mourant et. al. in view of Vasile (USPN 4,705,967). Mourant et. al. do not disclose the protect

circuit comprise a first bias impedance, a second bias impedance, a first capacitor, and a second capacitor as claimed. Vasile discloses that the protection circuit (74) comprises a first bias impedance (66) coupled between the first output terminal (24) of the transistor (20); and second bias impedance (68) coupled between the second output terminal (22) of the transistor (24); a first capacitor (40) coupled the first output terminal of the transistor and one of the pair of the balun output terminals (36); and a second capacitor (42) coupled between the second output terminal of the transistor and the other of the pair of the balun output terminal (38) (see fig. 1). It would have been obvious to one ordinary skill in the art to combine the protection circuit of Mourant et. al. with a first bias impedance, a second bias impedance, a first capacitor, and a second capacitor as described above in order to convert unbalanced voltage to balanced voltage to prevent the components of the integrated circuit from damage.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Weiner et. al. (U.S. Patent No. 4,947,062), disclose that a protection circuit prevent damage caused by unbalanced voltage.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (703)-305-5988. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703)-308-3119. The fax phone numbers

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Art Unit: 2836

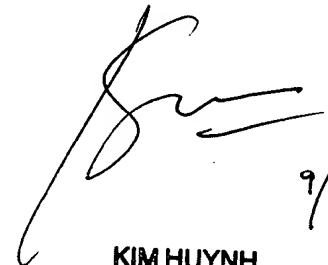
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for the organization where this application or proceeding is assigned are (703)-305-1341 for regular communications and (703)-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

D.N.

D.N.
September 18, 2002


9/18/02
KIM HUYNH
PRIMARY EXAMINER